

REMARKS

The Examiner is thanked for the thorough examination of the present application. The Office Action, however, tentatively rejected all claims: 1-19, 26, and 27. Specifically, claims 1-19, 26 and 27 stand rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Johnson (US 6,525,953) in view of Chakrabarti et al. (US 5,747,135). Applicant respectfully requests reconsideration and withdrawal of the rejections for at least the following reasons.

Independent Claims 1 and 14

Among other features and limitations, independent claims 1 and 14 each recite “depositing *a second dielectric layer* overlying the substrate, wherein oxygen plasma sputtering is employed to clean the substrate before deposition”. Simply stated, this feature is not disclosed or suggested in the cited art (or the combination thereof).

The Office Action admitted that Johnson does not disclose employing oxygen plasma sputtering to clean the substrate before deposition of the second dielectric layer. The Office Action, however, alleged that Chakrabarti et al. disclose a method of fabricating *a semiconductor memory device* where a *dielectric layer (16)* is formed over a substrate (12). These allegations are respectfully traversed.

In this regard, Applicant respectfully submits that the memory device taught by Chakrabarti et al. is directed to a magnetic memory disc which comprises a substrate, a hardening layer and a film made of nonferromagnetic material disposed between the substrate and the hardening layer (col. 1, lines 40-59). As such, the film made of nonferromagnetic material (16) taught by Chakrabarti et al. is not dielectric. Indeed, the nonferromagnetic material (16) taught to be preferably a nickel-based alloy (see col. 2, lines 51-59). In addition, the magnetic memory device disclosed by Chakrabarti et

al. is from a very different technical field than that of the application. As such, there is no teaching, suggestion, or motivation to modify the teaching of Johnson by Chakrabarti's teachings. For at least this reason, the rejection should be withdrawn.

In addition, it is respectfully submitted that Chakrabarti et al. fail to teach or suggest depositing *a second dielectric layer* overlying the substrate, wherein oxygen plasma sputtering is employed to clean the substrate before deposition (as claimed by independent claims 1-14). For at least this additional reason, independent claims 1 and 14 patently define over the cited art.

As a separate and independent basis for the patentability of claims 1 and 14, Applicant respectfully traverses the rejections as failing to identify a proper basis for combining the cited references. In combining these references, the Office Action stated only that because the references "are both from the same field of endeavor," their combination would have been obvious in order "to clean the substrate before deposition of a dielectric layer." (Office Action, pp 3-4). This alleged motivation is clearly improper in view of well-established Federal Circuit precedent.

It is well-settled law that in order to properly support an obviousness rejection under 35 U.S.C. § 103, there must have been some teaching in the prior art to suggest to one skilled in the art that the claimed invention would have been obvious. W. L. Gore & Associates, Inc. v. Garlock Thomas, Inc., 721 F.2d 1540, 1551 (Fed. Cir. 1983). More significantly,

"The consistent criteria for determination of obviousness is whether the prior art would have suggested to one of ordinary skill in the art that this [invention] should be carried out and would have a reasonable likelihood of success, viewed in light of the prior art. ..." Both the suggestion and the expectation of success must be founded in the prior art, not in the applicant's disclosure... In determining whether such a suggestion can fairly be gleaned from the prior art, the full field of the invention must be considered; for the person of ordinary skill in the art is charged with knowledge of

the entire body of technological literature, including that which might lead away from the claimed invention."

(*Emphasis added.*) In re Dow Chemical Company, 837 F.2d 469, 473 (Fed. Cir. 1988).

In this regard, Applicants note that there must not only be a suggestion to combine the functional or operational aspects of the combined references, but that the Federal Circuit also requires the prior art to suggest both the combination of elements and the structure resulting from the combination. Stiftung v. Renishaw PLC, 945 Fed.2d 1173 (Fed. Cir. 1991). Therefore, in order to sustain an obviousness rejection based upon a combination of any two or more prior art references, the prior art must properly suggest the desirability of combining the particular elements to derive a method for fabricating a semiconductor memory device, as claimed by the Applicant.

When an obviousness determination is based on multiple prior art references, there must be a showing of some "teaching, suggestion, or reason" to combine the references. Gambro Lundia AB v. Baxter Healthcare Corp., 110 F.3d 1573, 1579, 42 USPQ2d 1378, 1383 (Fed. Cir. 1997) (also noting that the "absence of such a suggestion to combine is dispositive in an obviousness determination").

Evidence of a suggestion, teaching, or motivation to combine prior art references may flow, inter alia, from the references themselves, the knowledge of one of ordinary skill in the art, or from the nature of the problem to be solved. See In re Dembiczak, 175 F.3d 994, 1000, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). Although a reference need not expressly teach that the disclosure contained therein should be combined with another, the showing of combinability, in whatever form, must nevertheless be "clear and particular." Dembiczak, 175 F.3d at 999, 50 USPQ2d at 1617.

If there was no motivation or suggestion to combine selective teachings from multiple prior art references, one of ordinary skill in the art would not have viewed the present invention as

obvious. See In re Dance, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998); Gambro Lundia AB, 110 F.3d at 1579, 42 USPQ2d at 1383 (“The absence of such a suggestion to combine is dispositive in an obviousness determination.”).

Significantly, where there is no apparent disadvantage present in a particular prior art reference, then generally there can be no motivation to combine the teaching of another reference with the particular prior art reference. Winner Int'l Royalty Corp. v. Wang, No 98-1553 (Fed. Cir. January 27, 2000).

For at least the additional reason that the Office Action failed to identify proper motivations or suggestions for combining the various references to properly support the rejections under 35 U.S.C. § 103, those rejections should be withdrawn.

For at least these reasons, independent claims 1 and 14 patently define over the cited art. As the remaining claims depend from claims 1 and 14, these claims define over the cited art for at least the same reasons.

Conclusion

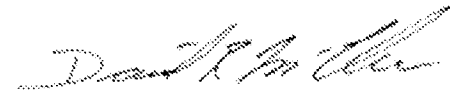
For the reasons described above, all claims 1-19 and 26-27 are believed to be in condition for allowance, and the Examiner is respectfully requested to pass those claims to issuance. If the Examiner believes a teleconference will expedite the examination of this application, the Examiner is invited to contact the undersigned attorney at 770-933-9500.

No fee is believed to be due in connection with this Amendment and Response to Restriction Requirement. If, however, any fee is deemed to be payable, you are hereby authorized to charge any such fee to deposit account 20-0778.

Respectfully submitted ,

**THOMAS, KAYDEN, HORSTEMEYER
& RISLEY, L.L.P.**

By:



Daniel R. McClure, Reg. No. 38,962

100 Galleria Parkway
Suite 1750
Atlanta, Georgia 30339-5948
(770) 933-9500